

Docket Nos. 2016-1128, -1132

In the

**United States Court of Appeals
for the
Federal Circuit**

INTELLECTUAL VENTURES I LLC,
INTELLECTUAL VENTURES II LLC,
Plaintiffs-Appellants

v.

ERIE INDEMNITY COMPANY, ERIE INSURANCE EXCHANGE,
ERIE INSURANCE PROPERTY & CASUALTY COMPANY,
ERIE INSURANCE COMPANY, FLAGSHIP CITY INSURANCE COMPANY,
ERIE FAMILY LIFE INSURANCE COMPANY,
OLD REPUBLIC GENERAL INSURANCE GROUP, INC.,
OLD REPUBLIC INSURANCE COMPANY,
OLD REPUBLIC TITLE INSURANCE GROUP, INC.,
OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY,
Defendants-Appellees

*Appeals from the United States District Court for the Western District of Pennsylvania
in Nos. 1:14-cv-00220-MRH and 2:14-cv-01130-MRH, Judge Mark R. Hornak.*

**BRIEF FOR DEFENDANTS-APPELLEES
OLD REPUBLIC GENERAL INSURANCE GROUP, INC.,
OLD REPUBLIC INSURANCE COMPANY,
OLD REPUBLIC TITLE INSURANCE GROUP, INC., AND
OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY**

ERIK J. CARLSON
SIDLEY AUSTIN LLP
555 West Fifth Street
Los Angeles, California 90013
(213) 896-6614 Telephone
ecarlson@sidley.com

VERNON M. WINTERS
SIDLEY AUSTIN LLP
555 California Street, 20th Floor
San Francisco, California 94104
(415) 772-1200 Telephone
vwinters@sidley.com

April 8, 2016



COUNSEL PRESS · (800) 3-APPEAL

PRINTED ON RECYCLED PAPER



CERTIFICATE OF INTEREST

Counsel for appellees Old Republic General Insurance Group, Inc., Old Republic Insurance Company, Old Republic Title Insurance Group, Inc., and Old Republic National Title Insurance Company certifies the following:

1. The full name of every party or *amicus* represented in this appeal is:

Old Republic General Insurance Group, Inc., Old Republic Insurance Company, Old Republic Title Insurance Group, Inc., and Old Republic National Title Insurance Company.

2. The names of the real parties in interest represented in this appeal are:

Not applicable.

3. The names of all parent corporations and any publicly held companies that own 10 percent of the party represented are:

Appellee Old Republic General Insurance Group, Inc. is a wholly-owned subsidiary of Old Republic International Corporation, the latter of which is publicly traded on the New York Stock Exchange under the symbol ORI.

Appellee Old Republic Insurance Company is a wholly owned subsidiary of appellee Old Republic General Insurance Group, Inc.

Appellee Old Republic Title Insurance Group, Inc. is a wholly-owned subsidiary of Old Republic International Corporation.

Appellee Old Republic National Title Insurance Company is a wholly owned subsidiary of Old Republic National Title Holding Company, which is a wholly owned subsidiary of appellee Old Republic Title Insurance Group, Inc.

4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this court are:

Sidley Austin LLP: Vernon M. Winters, Constantine L. Trela, Russell E. Cass, Erik J. Carlson, and Alexander D. Baxter.

Del Sole Cavanaugh Stroyd LLC: Arthur H. Stroyd, Jr. and Justin T. Romano.

Dated: April 8, 2016

/s/ Vernon M. Winters

VERNON M. WINTERS

SIDLEY AUSTIN LLP

555 California Street, 20th Floor

San Francisco, CA 94104

(415) 772-1200

Attorney for Defendants-Appellees

Old Republic General Insurance Group, Inc.,

Old Republic Insurance Company,

Old Republic Title Insurance Group, Inc.,

and Old Republic National Title Insurance

Company

TABLE OF CONTENTS

	Page
CERTIFICATE OF INTEREST	i
STATEMENT OF RELATED CASES	1
JURISDICTIONAL STATEMENT	3
STATEMENT OF THE ISSUES.....	3
PRELIMINARY STATEMENT	4
STATEMENT OF THE CASE.....	6
I. The Patents-in-Suit	6
A. The '581 Patent	6
1. Its Stated Problems: It Was Inconvenient to Gather and Analyze Information About a Device or Its User.....	7
2. Its Purported Solution: Use “Discovery Agents” to Collect Information and “Discovery Rules” to Analyze It.....	7
3. Its Implementing, and Wholly Conventional, Technologies	8
4. Its Claims	9
B. The '434 Patent	10
1. Its Stated Problem: Locating Desired Information Was Inconvenient.....	11
2. Its Stated Solution: Create an Index to Search for and Retrieve Data.....	11
3. Its Implementing, and Wholly Conventional, Technologies	12
4. Its Claims	13
C. The '002 Patent	14

1.	Its Stated Problem: User-Specific Information Could Not Be Remotely Accessed	15
2.	Its Stated Solution: Use a “Mobile Interface” that Can Remotely Access User-Specific Information	15
3.	Its Implementing, and Wholly Conventional, Technologies	17
4.	Its Claims	18
II.	The District Court Proceedings Below	20
	SUMMARY OF THE ARGUMENT	23
	STANDARDS OF REVIEW	24
	ARGUMENT	25
I.	All of the Claims of the Three Patents-in-Suit Were Patent-Ineligible Under §101, as the District Court Correctly Concluded	25
A.	The Opening Brief’s §101 Arguments Are Based on Misstatements of Linchpin §101 Law	26
1.	It Misstates the Role of Preemption, and Thus Misapplies Its Role in §101 Analysis	26
2.	It Misstates How to Conduct <i>Alice</i> ’s Step One, and Thus Misapplies <i>Alice</i>	28
3.	It Misstates the Role and Effect of the Machine-or- Transformation Test, and Thus Misapplies that Test	30
B.	The ’581 Patent Failed §101, as the District Court Correctly Concluded	31
1.	The ’581 Patent’s Claims Were Directed to the Patent-Ineligible Concept of Gathering, Storing, and Acting on Data Based on Predetermined Rules	31
2.	The ’581 Patent’s Claim Limitations Did Not Contain a Sufficient Inventive Concept	37

C.	The '434 Patent Failed §101, as the District Court Correctly Concluded.....	42
1.	The '434 Patent Claims Were Directed to the Patent-Ineligible Concept of Creating an Index and Using that Index to Search for and Retrieve Data.....	43
2.	The '434 Patent's Claim Limitations Did Not Contain a Sufficient Inventive Concept	45
D.	The '002 Patent Failed §101, as the District Court Correctly Concluded.....	49
1.	The '002 Patent's Claims Were Directed to the Patent-Ineligible Concept of Remotely Accessing User-Specific Information.....	50
2.	The '002 Patent's Claim Limitations Did Not Contain a Sufficient Inventive Concept	53
II.	IV's Procedure-Based Efforts to Avoid Testing Its Patents Under §101 Had No Traction, as the District Court Correctly Concluded	56
	CONCLUSION.....	58
	CERTIFICATE OF SERVICE	
	CERTIFICATE OF COMPLIANCE	

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>Accenture Global Services, GmbH v. Guidewire Software, Inc.</i> , 728 F.3d 1336 (Fed. Cir. 2013)	33, 42
<i>Alice Corp. Pty Ltd. v. CLS Bank International</i> , 134 S. Ct. 2347 (2014)..... <i>passim</i>	
<i>Ariosa Diagnostics, Inc. v. Sequenom, Inc.</i> , 788 F.3d 1371 (Fed. Cir. 2015)	27, 36
<i>Association for Molecular Pathology v. Myriad Genetics, Inc.</i> , 133 S. Ct. 2107 (2013).....	41
<i>Bell Atlantic Corp. v. Twombly</i> , 550 U.S. 544 (2007).....	57
<i>Bilski v. Kappos</i> , 561 U.S. 593 (2010).....	27
<i>buySAFE, Inc. v. Google, Inc.</i> , 765 F.3d 1350 (Fed. Cir. 1350)	<i>passim</i>
<i>Content Extraction & Transmission LLC v. Wells Fargo Bank, National Association</i> , 776 F.3d 1343 (Fed. Cir. 2014)	<i>passim</i>
<i>DDR Holdings, LLC v. Hotels.com, LP</i> , 773 F.3d 1245 (Fed. Cir. 2014)	30, 31, 40, 44
<i>Diamond v. Diehr</i> , 450 U.S. 175 (1981).....	27
<i>Intellectual Ventures I LLC v. Capital One Bank (USA)</i> , 792 F.3d 1363 (Fed. Cir. 2015)	<i>passim</i>
<i>Internet Patents Corp. v. Active Network, Inc.</i> , 790 F.3d 1343 (Fed. Cir. 2015)	28, 32, 39

<i>Mayo Collaborative Services v. Prometheus Labs., Inc.</i> , 132 S. Ct. 1289 (2012).....	27, 28, 38
<i>Microsoft Corp. v. i4i Ltd. Partnership</i> , 131 S. Ct. 2238 (2011).....	25
<i>Monsanto Co. v. Scruggs</i> , 459 F.3d 1328 (Fed. Cir. 2006)	51
<i>Mortgage Grader, Inc. v. First Choice Loan Services, Inc.</i> , 811 F.3d 1314 (Fed. Cir. 2016)	<i>passim</i>
<i>OIP Technologies, Inc. v. Amazon.com, Inc.</i> , 788 F.3d 1359 (Fed. Cir. 2015)	<i>passim</i>
<i>Open Text SA v. Box, Inc.</i> , 78 F.Supp.3d 1043 (N.D. Cal. 2015).....	27, 28
<i>Ultramercial, Inc. v. Hulu, LLC</i> , 772 F.3d 709 (Fed. Cir. 2014), <i>cert. denied</i> , 135 S. Ct. 2907 (2015).....	<i>passim</i>
<i>Versata Development Group, Inc. v. SAP America, Inc.</i> , 793 F.3d 1306 (Fed. Cir. 2015)	39

Statutes

28 U.S.C. §1295(a)(1).....	3
28 U.S.C. §1331	3
28 U.S.C. §1338(a)	3
35 U.S.C. §101	<i>passim</i>
35 U.S.C. §112(d)	53

Other Authorities

Fed. R. Civ. Proc. 12(b)(6)	25
-----------------------------------	----

STATEMENT OF RELATED CASES

No other appeal in or from the same civil action or proceeding in the lower court was previously before this or any other appellate court.

The following proceedings may directly affect or be directly affected by this court's decision in this appeal from the district court proceedings.

1. *The '581 patent.* Certain claims of U.S. Patent No. 6,519,581 ("'581 patent") are at issue in the following United States Patent and Trademark Office ("PTO") post-grant review proceedings that certain Old Republic companies brought: *Old Republic General Insurance Group, Inc. v. Intellectual Ventures I LLC*, IPR2015-01956 (PTAB) (claims 1-10 and 20-38), and *Old Republic General Insurance Group, Inc. v. Intellectual Ventures I LLC*, IPR2015-01957 (PTAB) (claims 11-19, 39-47). In addition, certain claims of the '581 patent are at issue in PTO post-grant review proceedings brought by IBM: *International Business Machines Corp. v. Intellectual Ventures I LLC*, IPR2015-01542 (PTAB) (claims 1-10 and 20-38), and *International Business Machines Corp. v. Intellectual Ventures I LLC*, IPR2015-01543 (PTAB) (claims 11-19 and 39-47).

2. *The '434 patent.* Certain claims of U.S. Patent No. 6,510,434 ('434 patent") are at issue in the following PTO post-grant review proceedings that certain Old Republic companies brought: *Old Republic General Insurance Group, Inc. v. Intellectual Ventures I LLC*, IPR2016-00019 (PTAB) (claims 1-6), and *Old*

Republic General Insurance Group, Inc. v. Intellectual Ventures I LLC, IPR2016-00020 (PTAB) (claims 7-8, 12, 14, 27-28). In addition, certain claims of the '434 patent are at issue in PTO post-grant review proceedings that IBM brought: *International Business Machines Corp. v. Intellectual Ventures I LLC*, IPR2015-01481 (PTAB) (claims 1-3, 5, 6-8, 12, 14, and 16).

3. *The '002 patent.* U.S. Patent No. 6,546,002 ("'002 patent") is at issue in *Intellectual Ventures I LLC v. Capital One Financial Corp.*, No. 16-1077 (Fed. Cir.), which this court designated as a companion case to this consolidated appeal.

The '002 patent is also at issue in the following PTO post-grant review proceedings that certain Old Republic companies brought: *Old Republic General Insurance Group, Inc. v. Intellectual Ventures II LLC*, CBM2015-00184 (PTAB) (claims 1-49), and *Old Republic General Insurance Group, Inc. v. Intellectual Ventures II LLC*, IPR2015-01992 (PTAB) (claims 1-49). In addition, certain '002 patent claims are at issue in PTO post-grant review proceedings brought by IBM: *Intellectual Ventures I LLC v. Citigroup, Inc.*, No. 1:14-cv-04638 (S.D.N.Y.), *International Business Machines Corp. v. Intellectual Ventures II LLC*, IPR2015-00089 (PTAB) (claims 1-24), and *International Business Machines Corp. v. Intellectual Ventures II LLC*, IPR2015-00092 (PTAB) (claims 25-49).

JURISDICTIONAL STATEMENT

The district court had jurisdiction over the patent infringement complaint, and over Old Republic's Rule 12(b)(6) motion, under 28 U.S.C. §§1331 and 1338(a). This court has jurisdiction over IV's appeal under 28 U.S.C. §1295(a)(1).

STATEMENT OF THE ISSUES

1. Whether, assuming that subject-matter jurisdiction existed, the district court correctly determined that the '581 patent was directed to patent-ineligible subject matter under 35 U.S.C. §101 because (1) it was directed to the patent-ineligible concept of gathering, storing, and acting on data based on predetermined rules, and (2) its claims failed to contain a sufficient inventive concept.
2. Whether the district court correctly determined that the '434 patent was directed to patent-ineligible subject matter under §101 because (1) it was directed to the patent-ineligible concept of creating an index and using that index to search for and retrieve data, and (2) its claims failed to contain a sufficient inventive concept.
3. Whether the district court correctly determined that the '002 patent was directed to patent-ineligible subject matter under §101 because (1) it was directed to the patent-ineligible concept of remotely accessing user-specific information, and (2) its claims failed to contain a sufficient inventive concept.

PRELIMINARY STATEMENT

This appeal involves the questions whether any of three software and computer technology patents, each of which issued well before the Supreme Court’s §101 decision in *Alice Corp. Pty Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014), survived its two-part §101 patent-eligibility analysis. They did not, as the district court correctly concluded.

Under *Alice*, courts must first look to the patent as a whole and the idea at its heart—that is, to the subject matter’s basic character—to see if it is directed to a patent-ineligible concept. Each one was, as the district court properly concluded.

In *Alice*’s step two, courts must assess the patent’s specification to determine whether its limitations contain an inventive concept sufficient to ensure that the patent was significantly more than a patent on that abstract idea. When cases have considered such limitations, that precedent can also provide useful guidance. None of the patents satisfied *Alice*’s step two, as the district court properly concluded. To the contrary, each stated that its abstract idea could have been implemented using routine and generic computer technologies. But even if they had not, post-*Alice* appellate law confirms that the implementing computing technologies—often as basic as a computer network—were conventional and routine. In a scholarly and thorough opinion, the district court below reached the right results.

IV's appeal arguments largely recycle its failed arguments below. Most critically, IV repeatedly ignores, mischaracterizes, or tries to distance itself from the many statements in each patent to the effect that its limitations could be implemented using routine and generic computing technologies—like a general-purpose computer with software that could process data (the '581 patent); generic software modules, an index, and a database (the '434 patent); or an interface with pointers that could retrieve data over a network (the '002 patent). The §101 appellate jurisprudence explicitly relies on such statements—and holds the patent-holder to them.

IV likewise criticizes the district court's methodology. It faults, for example, the district court's use of a representative claim to perform §101 analysis. This court's jurisprudence approves that methodology. IV insists that the patent-eligible concept at the heart of each patent must include minutiae from the claim limitations. This court instructs not to do that. IV repeatedly invokes the machine-or-transformation test, as if it were dispositive. But the claims failed that test, and IV's argument runs counter to Supreme Court law that satisfying the machine-or-transformation test, by itself, is not sufficient to render a claim patent-eligible.

IV presents no legitimate criticism of the district court's judgment. This case involves patents that do not survive *Alice*'s §101 assessment. Affirmance is warranted. Old Republic respectfully asks this court to do so.

STATEMENT OF THE CASE

I. The Patents-in-Suit

This consolidated appeal concerns the patent-ineligibility of three patents that Intellectual Ventures I LLC and Intellectual Ventures II LLC (collectively “IV”) tried to assert against four related entities: Old Republic General Insurance Group, Inc., Old Republic Insurance Company, Old Republic Title Insurance Group, Inc., and Old Republic National Title Insurance Company (collectively, “Old Republic”).¹ That complaint alleged that Old Republic used broadly characterized software and computer systems that infringed the three patents.² IV also filed a virtually identical complaint against certain Erie insurance companies.³

A. The ’581 Patent

The ’581 patent’s title was “Collection of Information Regarding a Device or a User of a Device Across a Communication Link.”⁴ It issued in February 2003 from an April 2001 application, well before *Alice* issued in 2014. As it stated, it

¹ Appx251-261. For ease of reference, Appendix citations herein omit the strings of zeroes.

² Appx256 at ¶ 24; Appx257 at ¶29; Appx258 at ¶33; and Appx259 at ¶37.

³ Compare Appx256 at ¶ 24; Appx257 at ¶29; Appx258 at ¶33; and Appx259 at ¶37 (allegations against Old Republic) with Appx245 at ¶25; Appx245-246 at ¶ 30; Appx246-247 at ¶ 34; and Appx247 at ¶ 38 (allegations against Erie). IV also filed the same generic complaint against Highmark, Appx228-238, which it has since dismissed.

⁴ Appx79.

was directed to collecting information about a device or its user.⁵ It concerned the concept of gathering, storing, and acting on data based on predetermined rules.⁶

1. Its Stated Problems: It Was Inconvenient to Gather and Analyze Information About a Device or Its User

According to the patent, prior applications for collecting and analyzing information about a device or its user were inconvenient: they retrieved and analyzed only a particular information set, were not easily modified, and often required the user to install, operate, and command them.⁷ The patent's purported solution was a system that could collect information automatically, that could be easily modified, and that could collect and analyze multiple types of data.⁸

2. Its Purported Solution: Use “Discovery Agents” to Collect Information and “Discovery Rules” to Analyze It

The patent's purported solution was to use a computer network system and undisclosed programs or code sequences called “discovery agents” to collect information to be analyzed by other undisclosed programs or code sequences called “discovery rules.”⁹ The discovery agents communicated the collected information across a communication link to a “discovery engine,” which would

⁵ Appx79 (Abstract); Appx86.

⁶ E.g., Appx90-91 at 10:66-11:7 (claim 1).

⁷ Appx86 at 1:18-53.

⁸ Appx86 at 1:54-59.

⁹ Appx86 at 1:62-2:6, 2:28-30; Appx87 at 3:5-35; Appx79 (Abstract).

apply “discovery rules” to the collected data to determine what, if any, action to take.¹⁰ (Although the patent’s specification repeatedly discusses a “discovery engine,” that phrase is absent from the claims.) The discovery agents and discovery rules could be updated automatically, without user involvement.¹¹

3. Its Implementing, and Wholly Conventional, Technologies

According to the patent, its claimed technologies could have been embodied using a general purpose computer.¹² Typical client/server architecture would have also sufficed.¹³ The patent did not describe how to construct the discovery agents or the discovery rules. Rather, the patent described each as simply a code sequence or program.¹⁴ The patent’s Figures described each as a literal black box.¹⁵

The discovery rules could have been any data operation or data comparison.¹⁶ The information that the discovery agents collected could have been anything, such as the client’s hardware configurations or the user’s hobbies,

¹⁰ Appx86 at 2:1-6; Appx87 at 3:12-18, 3:32-35.

¹¹ Appx87 at 3:49-62.

¹² Appx90 at 10:13-15; Appx85 (Fig. 7).

¹³ Appx88 at 5:40-54; *see also* Appx80 (Fig. 1), Appx86 at 2:39-41; Appx87-88 at 4:8-5:62.

¹⁴ Appx86 at 2:28-30; Appx79 (Abstract).

¹⁵ Appx80 (Fig. 1).

¹⁶ Appx87 at 3:18-21, 4:44-50.

vacation preferences, occupation, or gender.¹⁷ The required computer-readable medium could have been “any type of magnetic, optical, or electrical storage medium[.]”¹⁸ Finally, the claimed “communication link” could have been any type of communication link, such as a local area network (“LAN”), a wide area network (“WAN”), or the Internet, using any type of communication medium.¹⁹ The patent advised that the ordinary artisan could have practiced the invention even “without these specific details.”²⁰

4. Its Claims

Claim 1 of the ’581 patent recited a method of collecting information, and principally concerned the steps at the sending end:²¹

A method of collecting information, the method comprising:
 transmitting a discovery rule across a communication link to a computer system, wherein the discovery rule is to be applied to data about the computer system or a user to generate information, and wherein the data is collected by a discovery agent located in the computer system, and
 receiving the information from the computer system.

Claim 11 was the same, except that it principally concerned the steps at the

¹⁷ Appx87 at 4:17-20; Appx82 (Fig. 3).

¹⁸ Appx90 at 10:52-55.

¹⁹ Appx88 at 5:19-25.

²⁰ Appx86-87 at 2:66-3:4; *see also* Appx90 at 10:56-64.

²¹ Appx90-91; *see also* Appx48.

receiving end.²² Five of the patent's 47 claims were independent: claims 1, 11, and 20, and computer-readable medium claims 29 and 39.²³ Claim 20 merely added that a user could prompt transmission of a discovery rule ("a user request") and would receive a response, while also noting that a discovery agent could have been automatically activated without requiring the user's action.²⁴ Claims 29 and 39 were essentially the same as claims 1 and 11, except that they required a computer-readable medium containing the instructions to implement the specified methods.²⁵

Where, as here, the claims are substantially similar and linked to the same abstract idea, patent-ineligibility is properly assessed based on a representative claim.²⁶ Accordingly, the district court assessed patent-ineligibility based on representative claim 1.²⁷

B. The '434 Patent

The '434 patent also issued well before *Alice*. The initial patentee applied for

²² Appx91; *see also* Appx48.

²³ Appx90-92.

²⁴ Appx91; *see also* Appx49.

²⁵ Appx91-92; *see also* Appx49.

²⁶ E.g., *Content Extraction & Transmission LLC v. Wells Fargo Bank, National Association*, 776 F.3d 1343, 1348 (Fed. Cir. 2014); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 712 (Fed. Cir. 2014), cert. denied, 135 S. Ct. 2907 (2015) ("Ultramercial III").

²⁷ Appx48-49.

it in December 1999; it issued in January 2003.²⁸ Titled “System and Method for Retrieving Information from a Database Using an Index of XML Tags and Metafiles,” it concerned the concept of creating an index and using that index to search for and retrieve data.²⁹

1. Its Stated Problem: Locating Desired Information Was Inconvenient

The patent asserted that because of an ever-increasing amount of recorded and searchable information, existing database search technologies were inconvenient. They could return undesired information: either the wrong information, or too much. The information might also be stored in an inconvenient fashion. To address such problems, the patent asserted that an improved method of searching that used a universal search vocabulary was needed.³⁰

2. Its Stated Solution: Create an Index to Search for and Retrieve Data

The patent purported to address such problems by providing a method for locating information stored in a database by using an index.³¹ An index was simply a guide used to locate information stored in a database. The index included tags associated with data or text in the database and also corresponded to categories and

²⁸ Appx121.

²⁹ E.g., Appx135 at 1:24-26; Appx142 (claims 1 and 7).

³⁰ Appx135 at 1:30-2:24.

³¹ Appx135 at 2:36-39.

domains used in the database's hierarchy.³²

A category was a group of terms, and a domain was a grouping of categories.³³ Under the patent, an index was created so that a tag was associated with each domain and with each term associated with a category. The tags could, but need not necessarily, be eXtensible Markup Language or “XML” tags. (Some tags also had an associated metafile, which provided additional information about the tag. The metafile typically included a list of related tags, such as “domain” or “category.” The metafile also implemented a hierarchy between the tags in the metafile.³⁴) The domains, categories, and terms were used to locate information within the database.³⁵

3. Its Implementing, and Wholly Conventional, Technologies

The patent itself confirmed that each of the computer, networking, and database technologies involved in the patent's claims were routine and generic. The exemplary configuration used a “conventional computer[.]”³⁶ The Figures illustrating an exemplary environment for the claimed invention were simply a

³² Appx135 at 2:34-56.

³³ Appx135 at 2:36-39.

³⁴ Appx135 at 2:60-65.

³⁵ Appx135 at 2:48-56, 2:56-60 (XML tags).

³⁶ Appx137 at 5:5-7.

series of block diagrams representing a generic personal computer³⁷ and generic software.³⁸ According to the patent, it could have been embodied by generic “software program modules that run on an operating system in conjunction with a computer.”³⁹ The ordinary artisan would have understood that the claimed invention could be practiced on any number of computer system configurations.⁴⁰

The index was not unusual; it was just “essentially a guide that is used to locate information stored in a database.”⁴¹ Likewise, the search request could have been broadly made: by text via a computer or voice via a computer or telephone.⁴² The claimed networking technologies could have been anything: an intranet; the Internet; a LAN; a WAN; or even a telephone connection.⁴³ Finally, the claimed database could have been any of the “multitude of databases” available in those conventional computer systems.⁴⁴

4. Its Claims

As the district court correctly stated, the ’434 patent was drawn to the

³⁷ Appx136 at 3:45-48; Appx123 at Fig. 1A; *see also* Appx137 at 5:61-64 (“conventional” computer).

³⁸ Appx137 at 3:49-51; Appx124 at Fig. 1B.

³⁹ Appx136 at 4:55-58.

⁴⁰ Appx136-137 at 4:61-65, 5:5-16.

⁴¹ Appx135 at 2:39-41.

⁴² Appx141 at 14:34-36.

⁴³ Appx137 at 6:15-48.

⁴⁴ Appx135 at 2:16-18.

concept of creating an index and using that index to search for and retrieve information.⁴⁵ All 28 claims were directed to that concept or some aspect of it. Some were directed to methods of creating a database and an index; the others concerned methods of searching the database using the index or with a computer-readable medium that contained instructions for doing so.⁴⁶

The district court properly concluded that independent claims 1 and 7 were representative of the other claims, and assessed patent-eligibility on that basis.⁴⁷

C. The '002 Patent

The '002 patent, entitled "System and Method for Implementing an Intelligent and Mobile Menu-Interface Agent," was filed for (July 1999) and issued (April 2003) well before *Alice*.⁴⁸ The patent concerned remotely accessing user-specific information.⁴⁹

⁴⁵ Appx61.

⁴⁶ Appx61-62. In particular, independent claim 1 (and its dependent claims 2 through 6), and independent claim 25, concerned methods to create a database and index. Independent claim 7 (and its dependent claims 8 through 13), independent claim 19 (and its dependent claims 20 and 21), independent claim 22 (and its dependent claims 23 and 24), independent claim 27 (and its dependent claim 28), and dependent claim 26 concerned methods to search a database. Independent claim 14 (and its dependent claims 15-18) concerned computer-readable media that contained instructions for doing so. Appx142-144.

⁴⁷ Appx61-62.

⁴⁸ Appx94.

⁴⁹ Appx94 (Abstract); Appx110 at 1:10-19.

1. Its Stated Problem: User-Specific Information Could Not Be Remotely Accessed

According to the patent, prior art computer systems were deficient because the programs or user-specific information that they contained could not be remotely accessed. For example, users often had multiple computing devices. But the user-specific information (bookmarks, for example) on each of them was device-specific, even if the same user owned both devices.⁵⁰ In addition, a computer's user-specific “Start” menu bar could not access that user's information on a different computer.⁵¹ Such problems caused “much inconvenience and inefficiency” for users who sought access to data across devices or applications.⁵²

2. Its Stated Solution: Use a “Mobile Interface” that Can Remotely Access User-Specific Information

The patent purported to address such problems with a “mobile interface.” The mobile interface was “basically an agent that allows the user to access documents, files, programs, applications, URL bookmarks, IP addresses, telephone numbers, television channels, radio stations, and other menu items from any computer that is connected to a network.”⁵³ That access to user-specific information

⁵⁰ Appx110 at 2:35-46.

⁵¹ Appx110 at 1:52-55.

⁵² Appx110 at 2:45-46; *see also* Appx110-111 at 2:35-3:22; Appx112 at 5:51-53.

⁵³ Appx111 at 4:49-54. The specification used “mobile interface agent” or its acronym, MIA, more than 200 times, but not “mobile interface” as a stand-alone phrase. All of the independent claims used “mobile interface,” Appx118-119

was achieved through “pointers.”⁵⁴

The patent asserted that there were “countless uses” of the purported invention, across a wide variety of fields.⁵⁵ In commerce, for example, to recommend a Chinese restaurant.⁵⁶ For online advertising or promotional services, or to allow multiple financial transactions using billing or bank information specific to the user.⁵⁷ In word processing, automatically to extract information (e.g., an address) from a user profile database to use in a letter, resume, or the like.⁵⁸ In computing, to check whether other applications are running concurrently.⁵⁹ In entertainment, to provide access to television channels or radio stations, or to children’s stories in audio form.⁶⁰ In education, to provide links to math lessons.⁶¹

(claims 1, 11, 25, 34, 40, and 49), except for one usage of “mobile interface agent” in dependent claim 7. Appx118 at 17:38-41. IV’s brief treats the two phrases as synonymous. *Compare* Br. at 53 (“The Patent . . . provides a computer-technology solution (a mobile interface agent[.]) *with* Br. at 55 (“The use of the mobile interface solves a unique computer-networking problem[.]”). In its briefing below, IV asserted that the ’002 patent was directed to “mobile interface software for a computer of a mobile device that can dynamically access user information stored in a remote computer.” Appx618.

⁵⁴ Appx112 at 6:13-16; Appx113 at 8:33-44.

⁵⁵ Appx113 at 8:7.

⁵⁶ Appx114 at 9:47-49.

⁵⁷ Appx113 at 8:7-13.

⁵⁸ Appx113 at 8:19-22.

⁵⁹ Appx113 at 8:13-16.

⁶⁰ Appx94 (Abstract); Appx114 at 9:9-14.

⁶¹ Appx117 at 15:50-61.

3. Its Implementing, and Wholly Conventional, Technologies

Like the other two patents, the '002 patent's specification described the patent's implementing technologies as routine and generic. IV's brief describes the mobile interface as the "core" of the patent's ability to obtain access to user-specific information.⁶² Although the patent's specification illustrated an embodiment of such an interface, the specification also stated that many other interfaces were possible.⁶³ The patent's access to user-specific information was achieved through "pointers."⁶⁴ But a pointer was simply a link to a resource or user-specific item;⁶⁵ clicking on the pointer caused the computer to retrieve the linked user-specific resources or information.⁶⁶ The patent conceded that the art commonly used pointers.⁶⁷

According to the patent, the mobile interface could have been implemented by essentially anything: "software, firmware, or hardware."⁶⁸ The patent's Figures consistently represented it as a literal black box, linked to other conventional

⁶² Br. at 56.

⁶³ Appx112 at 6:10-13.

⁶⁴ Appx112 at 6:13-16; Appx113 at 8:33-44.

⁶⁵ Appx114 at 10:8-10.

⁶⁶ Appx114 at 10:10-15.

⁶⁷ Appx110 at 1:39-41.

⁶⁸ Appx112 at 6:34-37.

computer components.⁶⁹ The patent stated that the mobile interface could have been used on any “computer type-device,” from any geographical location, to dynamically access user-specific information or resources on any computer that was or could be connected to a network.⁷⁰

The ’002 patent did not describe how to program or implement the mobile interface. In discussing the claimed technologies, the specification did not discuss anything other than conventional hardware or software components, and it did not explain how to create any of that hardware or software. Instead, the patent stated that the ordinary artisan would have recognized that the claimed invention could have been practiced “without resorting to the details” of the specification.⁷¹

4. Its Claims

The patent contained 49 claims, 6 of which were independent: method claims 1 and 11; mobile interface claims 25 and 34; and system claims 40 and 49.⁷² Claim 1 recited a method, and comprised three steps:⁷³

⁶⁹ Appx94 (Abstract); Appx95 (Figs. 1A & 1B); Appx97 (Fig. 3); Appx98 (Fig. 4); Appx99 (Fig. 5); Appx100 (Fig. 6); Appx102 (Fig. 8); Appx103 (Fig. 9); Appx107 (Fig. 13); Appx108 (Fig. 14); Appx109 (Fig. 15).

⁷⁰ Appx111 at 3:57-63, 4:21-24; *see also, e.g.*, Appx94 (Abstract); Appx110 at 1:7-12.

⁷¹ Appx118 at 17:1-3.

⁷² Appx118-119.

⁷³ Appx118 at 17:9-21.

A method for retrieving user specific resources and information stored either on a local device or a network server, the method comprising the steps of:

retrieving a mobile interface from the network server to the local device;

displaying the mobile interface on the local device, the mobile interface including a plurality of pointers corresponding to the user specific resources and information; and

retrieving the user specific resources and information using the plurality of pointers displayed on the mobile interface.

As the district court correctly concluded, for §101 purposes the other claims were substantially similar.⁷⁴ Method claims 1 and 11 were identical, except that the latter retrieved user profile and configuration data rather than a mobile interface.⁷⁵ Claim 25 was essentially claim 1, rewritten to claim a mobile interface rather than a method of using one.⁷⁶ Claim 34 was essentially claim 11, rewritten to claim a mobile interface rather than a method of using one.⁷⁷

Dependent claims 2-5 explained what broad types of user-specific information could have been accessed, ranging from “programs, applications, files, documents, bookmarked URLs, and user profiles” to “television channels,”

⁷⁴ Appx70-71.

⁷⁵ Compare Appx118 (claim 1) with Appx118 (claim 11).

⁷⁶ Compare Appx118 (claim 1) with Appx118 (claim 25).

⁷⁷ Compare Appx118 (claim 11) with Appx119 (claim 34).

“telephone numbers,” and “television program listings.”⁷⁸ Claim 6 contained the added step of “licensing the user specific resources to a user based on a per user licensing model.”⁷⁹ Dependent claims 7-10 specified the way in which the mobile interface had been accessed—through a cellular network the Internet, a LAN, MAN, or WAN, or a television network.⁸⁰ The patent repeated those generic dependent limitations variously in the other dependent claims.⁸¹

Accordingly, because the claims were substantially similar and linked to the same abstract idea, the district court properly assessed them for §101 purposes based on representative claim 1.⁸²

II. The District Court Proceedings Below

Each of IV’s separate lawsuits asserted the three patents-in-suit and contained essentially the same allegations, with the defendants’ names and accused websites changed.⁸³ Old Republic moved to dismiss each of IV’s patent claims under Rule 12(b)(6), asserting that they were patent-ineligible under §101.⁸⁴ Erie

⁷⁸ Appx118 (claims 2-5).

⁷⁹ Appx118 (claim 6).

⁸⁰ Appx118 (claims 7-10).

⁸¹ Appx118-119 (claims 26-33, 35-39, and 41-46).

⁸² Appx70-71.

⁸³ Compare Appx251-261 (Old Republic) with Appx239-250 (Erie). IV’s complaint against Erie companies asserted a fourth patent that is not involved in this appeal. Appx248-249.

⁸⁴ Appx262-267.

later filed its own 12(b)(6) motion challenging the patent-eligibility of the '581 and '434 patents.⁸⁵ (It explained that they had not moved on the '002 patent because it was subject to an *inter partes* review proceeding.⁸⁶ Under normal statutory deadlines, a final written decision thereon should issue by April 27, 2016.) Erie also moved under FRCP 12(b)(1) to dismiss, arguing that IV did not own the '581 patent.⁸⁷ Old Republic joined that motion,⁸⁸ although there, as here, deferred to Erie's briefing and argument on the ownership issue.

The district court afforded IV extraordinary process. The court received prehearing briefs, held a lengthy hearing, and received IV's and the parties' slides, which it treated as supplemental briefing.⁸⁹ It also asked the parties to file notices of relevant post-hearing authority, which IV and Old Republic did.⁹⁰

The district court issued a single scholarly and thorough exegesis of §101 law, both in general and as applied to the three patents, in each of the separate

⁸⁵ Appx423-426.

⁸⁶ Appx474 n.2.

⁸⁷ Appx768-897.

⁸⁸ Appx898-900.

⁸⁹ Appx2639-2868 (hearing transcript); Appx1245-1306 (IV's hearing demonstratives); Appx1416-1445 (Old Republic's hearing demonstratives); Appx1307-1415 (Erie's hearing demonstratives); Appx2845 at 2-5.

⁹⁰ Appx2867 at 11-23 (court's request); Appx1222-1242; Appx1533-1655; Appx1879-1893 (IV's notices); Appx1446-1449; Appx1450-1532; Appx1656-1713; Appx1714-1753; Appx1754-1807; Appx1808-1878; 1895-1906; Appx1908-2029; Appx2030-2297; Appx2298-2377; Appx2378-2382 (Old Republic's notices).

cases. It first carefully reviewed *Alice*'s two-part patent-ineligibility test and §101's first principles as reflected in the Supreme Court's pre-*Alice* jurisprudence and this court's post-*Alice* jurisprudence.⁹¹ In its patent-specific §101 analysis, it concluded that each of IV's patents were not patent-eligible, because (1) each reflected a patent-ineligible concept,⁹² and (2) the claim limitations did not add a sufficient inventive concept, because they consisted of routine and generic computer technologies—as the patents themselves each stated, and as case law from this court confirmed.⁹³ The district court likewise rejected IV's attempts to use procedural arguments to shield each of the three patents from §101 review.⁹⁴

⁹¹ Appx27-29 (*Alice* test); Appx29-35 (Supreme Court §101 law up to *Alice*); Appx36-44 (this court's then-extant post-*Alice* §101 jurisprudence).

⁹² Appx50-51 ('581 patent); Appx63 ('434 patent); and Appx72-73 ('002 patent). The district court preceded its §101 analysis of the '581 patent with its assessment of Erie's 12(b)(1) challenge to IV's ownership of the '581 patent, which it granted. Noting that it could not exclude the possibility that other courts could consider the patent-ineligibility of the '581 patent, the district court properly decided to assess the defendants' §101 challenges. Appx48 n.63.

⁹³ Appx51-61 ('581 patent); Appx66-70 ('434 patent); and Appx74-76 ('002 patent).

⁹⁴ Appx24-25 & n.34; Appx39 (can assess §101 issues under Rule 12(b)(6)); Appx44-46 (can assess §101 issues using a representative claim or claims) (citing, *inter alia*, *OIP Technologies, Inc. v. Amazon.com, Inc.*, 788 F.3d 1359 (Fed. Cir. 2015); *Content Extraction*, 776 F.3d at 1348; *Ultramercial III*, 772 F.3d at 712); Appx47-48 (IV failed to identify claim construction disputes, proffer constructions, or show how construction would affect the §101 analysis).

SUMMARY OF THE ARGUMENT

Under Alice, a patent must survive a two-part test to be patent-eligible under 35 U.S.C. §101. This case involves three patents that each failed that test: U.S. Patent Nos. 6,519,581 (“581 patent”), 6,510,434 (“434 patent”), and 6,546,002 (“002 patent”). Each issued well before *Alice*, and thus none had previously undergone *Alice*-based scrutiny to see whether they claimed patent-eligible subject matter. The district court below did so, and reached the right results.

Using *Alice*’s analytical framework, as further elucidated in this court’s post-*Alice* §101 jurisprudence, it correctly assessed the two questions that *Alice* poses: (1) was the patent directed to a patent-ineligible concept?; and (2) if so, and considering the claim elements both individually and as an ordered combination, does the claim contain an inventive concept sufficient to ensure that the patent amounts to significantly more than a patent on the patent-ineligible concept? In assessing *Alice*’s step one, this court has instructed lower courts to look to the idea at the patent’s heart—to its basic character and subject matter. In doing so, the court must necessarily look beyond the minutiae of the patent’s claims. In assessing *Alice*’s step two, this court has looked to the disclosures of the patent in question and, if prior cases have considered similar claim limitations, to that law.

The district court faithfully followed that guidance. Using a representative claim or claims for each patent, the district court correctly concluded that no patent

passed muster under *Alice*. Each patent was directed to a patent-ineligible concept. And each patent repeatedly stated that its claims could have been implemented using routine and generic technologies, some as basic as a computer network.

In this court, as below, IV raises a series of procedural arguments to avoid the district court's §101 assessment of the patents: that §101 defects cannot be assessed on a 12(b)(6) motion; that §101 analysis must be delayed until after claim construction; that §101 assessment must proceed claim-by-claim; and the like. This court has specifically rejected such arguments in one or more post-*Alice* cases. The district court rightly applied that law. IV's brief presents no principled basis to overturn that law or to reverse the district court's judgment.

That point carries over to the substantive issues in this appeal. IV's brief presents no principled reason to overturn this court's cases that the district court applied, to reverse the district court's judgment, or to overturn this court's cases since then. The district court reached the right §101 results. Old Republic respectfully asks that this court affirm.

STANDARDS OF REVIEW

The district court dismissed the complaint below for failure to state a claim, which this court reviews under the regional circuit's law. The Third Circuit, in which the Western District of Pennsylvania sits, reviews *de novo* challenges to a

dismissal for failure to state a claim under Rule 12(b)(6).⁹⁵ Patent-ineligibility under 35 U.S.C. §101 is an issue of law that likewise receives *de novo* review.⁹⁶

IV's brief asserts that even on *de novo* review of this question of law, the clear and convincing *evidence* standard applies.⁹⁷ That argument attacks a straw man. Old Republic presented its arguments as if that standard applied, and the district court applied it.⁹⁸ There are, to be sure, sound reasons why that standard should not apply.⁹⁹ But the briefing and decision applied it.

ARGUMENT

I. All of the Claims of the Three Patents-in-Suit Were Patent-Ineligible Under §101, as the District Court Correctly Concluded

IV has no legitimate complaint about the district court's judgment. The three patents' claims all failed *Alice*'s two-part §101 test. IV's arguments on appeal,

⁹⁵ E.g., *Content Extraction*, 776 F.3d at 1346 (citing Third Circuit authority).

⁹⁶ E.g., *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1366 (Fed. Cir. 2015) ("*Intellectual Ventures I*").

⁹⁷ Br. at 33-34.

⁹⁸ Appx277 n.3; Appx26-27 n.37.

⁹⁹ As Old Republic's briefing below explained, as a normative matter the clear and convincing *evidence* standard should not apply, because: patent-eligibility is a question of law; the Supreme Court has not mentioned that standard in any of its modern patent-eligibility opinions; and under the concurrence in *Microsoft Corp. v. i4i Ltd. Partnership*, 131 S. Ct. 2238, 2253 (2011), that standard does not apply when the ultimate question turns on the correct answer to legal questions. Appx277 at n.3. In addition, the clear and convincing evidence standard should not apply when, as here, the PTO assessed patent-eligibility under the now-disapproved "useful, concrete, and tangible result" patent-eligibility test, which this court repudiated after these patents issued. Appx273-274; *see also* Appx277 n.3.

most of which simply recycle its failed arguments below, run counter to the law.

A. The Opening Brief’s §101 Arguments Are Based on Misstatements of Linchpin §101 Law

IV’s opening brief’s §101 arguments are all premised on misstatements of linchpin §101 jurisprudence, in three important ways.

1. It Misstates the Role of Preemption, and Thus Misapplies Its Role in §101 Analysis

First, its arguments depend on the premise that a patent satisfies §101 unless it preempts “all” ways (or “every way”) of performing the patent’s abstract idea—and, the brief posits, its patents do not do so.¹⁰⁰ The brief cites no authority from this court so holding. With good reason: this court has specifically rejected that premise. In *buySAFE*, for example, this court concluded that a computerized method for a third-party guaranty of a sales transaction violated §101, even though a dependent claim was limited to one of four forms of such a guaranty.¹⁰¹ In *OIP Technologies*, this court concluded that “that the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract.”¹⁰²

Contrary to the brief’s premise, this court instructs that preemption issues

¹⁰⁰ Br. at 40-42 (’581 patent), 49-52 (’434 patent), 58-59, 62 (’002 patent).

¹⁰¹ *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350 (Fed. Cir. 1350); *see also id.* at 1352 (setting forth dependent claim 14), 1354-1355 (the claims failed *Alice*).

¹⁰² *OIP Technologies*, 788 F.3d at 1362-1363.

are inherent in and resolved by the §101 analysis, and that where, as here, a patent's claims disclose patent-ineligible subject matter under *Alice*, preemption concerns are fully addressed and made moot.¹⁰³ Thus, while preemption may signal patent-ineligibility, incomplete preemption does not signal the opposite.¹⁰⁴

Moreover, the legal proposition that IV's brief sought to create would run counter to settled Supreme Court §101 jurisprudence, reflected at least in *Diehr*, *Bilski*, *Mayo*, and *Alice* (and enforced by this court, including in a prior case involving IV), that patent-eligibility is not created by limiting the claims to a particular technological environment.¹⁰⁵ If patent-eligibility cannot be created by limiting the claims to a particular technological environment, it necessarily follows that patent-eligibility is not determined by assessing whether a claim preempts all or every way of performing its abstract idea. Sound and proper institutional limitations underlie this principle.¹⁰⁶

¹⁰³ *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

¹⁰⁴ 788 F.3d at 1371.

¹⁰⁵ *Diamond v. Diehr*, 450 U.S. 175, 191-192 (1981); *Bilski v. Kappos*, 561 U.S. 593, 609-612 (2010); *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1297 (2012); *Alice*, 134 S. Ct. at 2358; see also *Intellectual Ventures*, 792 F.3d at 1366, 1368; *Ultramercial III*, 772 F.3d at 716.

¹⁰⁶ As a district court in the Northern District of California has cogently observed, “while preemption concerns may be the root of the Supreme Court’s section 101 test, it does not follow that the Court determines patentability by guessing at the probability of preemption. There is no non-speculative way for a court to determine whether and to what extent future innovation might be curtailed,”

2. It Misstates How to Conduct *Alice's* Step One, and Thus Misapplies *Alice*

In each of its three patent-specific arguments regarding the result of *Alice's* step one, IV's brief manifests a *second* lynchpin error: that *Alice's* step one focuses on the minutiae of the claims' limitations rather than what the brief calls "zoom[ing] out beyond the claims[.]"¹⁰⁷ That is simply wrong. Step one assesses the claims as a whole¹⁰⁸ and the idea at the patent's heart¹⁰⁹; that is, the subject matter's basic character,¹¹⁰ without focusing on the claim limitations' minutiae.

For example, in *Alice* itself, all of the claims were implemented using a computer: the system and media claims expressly recited a computer, and the method claims required a computer, too.¹¹¹ The representative 194-word claim also contained limitations such as creating a shadow credit record and a shadow debit record.¹¹² But the Court concluded that the claims were drawn to the patent-

because the courts are institutionally ill-suited to make such judgments. *Open Text SA v. Box, Inc.*, 78 F.Supp.3d 1043, 1048 (N.D. Cal. 2015) (citing *Mayo*, 132 S. Ct. at 1303).

¹⁰⁷ Br. at 49.

¹⁰⁸ *Alice*, 134 S. Ct. at 2359. The word count is of *Alice's* representative claim. 134 S. Ct. at 2352 n.2.

¹⁰⁹ *Ultramercial III*, 772 F.3d at 714 ("abstract idea at the heart of the . . . patent").

¹¹⁰ *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015).

¹¹¹ *Alice*, 134 S. Ct. at 2353.

¹¹² 134 S. Ct. at 2352 n.2.

ineligible concept of intermediated settlement.¹¹³

This court has added its own lights to *Alice*'s path. In *Mortgage Grader*, for example, the representative claim required (among other things) a computer system, an interface that allowed lenders to upload information to a database over a computer network, and a grading module on a computer.¹¹⁴ But the resulting patent-ineligible concept was simply anonymous loan shopping.¹¹⁵ In *buySAFE*, the 133-word representative claim contained such computer-centric technologies as “receiving, by at least one computer application program running on a computer of a safe transaction service provider, a request from a first party” and “processing, by at least one computer application program running on the safe transaction service provider computer, the request.”¹¹⁶ But the *Alice* step-one patent-ineligible concept was creating a transaction performance guaranty.¹¹⁷ In *OIP Technologies*, the 269-word representative claim included computer technologies such as “a computerized system to read said statistics from said machine-readable medium,” devices programmed to receive offers, and sending a set of electronic messages over a

¹¹³ *Alice*, 134 S. Ct. at 2353.

¹¹⁴ *Mortgage Grader, Inc. v. First Choice Loan Services, Inc.*, 811 F.3d 1314, 1318 (Fed. Cir. 2016).

¹¹⁵ 811 F.3d at 1324.

¹¹⁶ *buySAFE*, 765 F.3d at 1351-1352.

¹¹⁷ 765 F.3d at 1354-1355.

network to devices.¹¹⁸ But the *Alice* step-one patent-ineligible concept was simply offer-based price optimization.¹¹⁹

In short, *Alice*'s step one requires that the court look beyond the minutiae of the claims; IV's brief, on the other hand, embraces it. It is a fatal mistake that IV's brief makes in each patent-specific section. As the district court correctly noted, a claim's particular and individual limitations have a place in *Alice*'s analysis. But it is in step two, not step one.¹²⁰

3. It Misstates the Role and Effect of the Machine-or-Transformation Test, and Thus Misapplies that Test

IV's brief argues that each of IV's patents satisfied §101 solely because each satisfied the machine-or-transformation test.¹²¹ (Ironically, IV's argument here employed a representative claim—a methodology it otherwise contended was legal error.) Leaving aside whether any of the patents satisfied that test, “the Supreme Court [has] emphasized that satisfying the machine-or-transformation test, by itself, is not sufficient to render a claim patent-eligible[.]”¹²²

And, in point of fact, none of the patents satisfied that test, because it is

¹¹⁸ *OIP Technologies*, 788 F.3d at 1361.

¹¹⁹ 788 F.3d at 1362.

¹²⁰ Appx72 (in the context of the '002 patent); *Ultramercial III*, 772 F.3d at 715 (“any novelty in implementation of the idea is a factor to be considered only in the second step of the *Alice* analysis.”).

¹²¹ Br. at 43 ('581 patent); Br. at 52-53 ('434 patent); Br. at 63 ('002 patent).

¹²² *DDR Holdings, LLC v. Hotels.com, LP*, 773 F.3d 1245, 1256 (Fed. Cir. 2014).

settled that reciting generic computer limitations does not make an otherwise ineligible claim patent-eligible.¹²³ As explained in Statement of the Case §I(A)(3) ('581 patent), §I(B)(3) ('434 patent), and §I(A)(C)(3) ('002 patent), *supra*, that is all that the claims recited: generic computer limitations. The machine-or-transformation test cannot revive any of the three patents-in-suit.

B. The '581 Patent Failed §101, as the District Court Correctly Concluded

The district court concluded that the '581 patent failed §101 because the patent's claims were "drawn to the abstract idea of gathering, storing, and acting on data based on predetermined rules, and its claims for doing so on generic computers and networks using mathematical formulas and code sequences [did] not transform it into patent-eligible subject matter."¹²⁴ That conclusion was correct.

1. The '581 Patent's Claims Were Directed to the Patent-Ineligible Concept of Gathering, Storing, and Acting on Data Based on Predetermined Rules

The brief's central *Alice* step one argument is that the claims were directed to the method of "transferring software code (a discovery rule) to a computer system, executing that code (via a discovery engine) on data collected by a different computer program (a discovery agent), and then transmitting the results

¹²³ *Id.* (citing *Alice*, 134 S. Ct. at 2358); see also *Ultramercial III*, 772 F.3d at 716-717 (if the claimed computer-technology limitations can be implemented using a general-purpose computer, the machine-or-transformation test does not save the claim).

¹²⁴ Appx60-61 (brackets supplied; footnote omitted).

from the computer system.”¹²⁵ Contrary to IV’s argument, the claims do not, in fact, recite a discovery engine. But leaving that mischaracterization aside, IV’s argument makes the second linchpin mistake discussed above in Argument §I(A)(2): it improperly focuses on the claim limitations’ minutiae, rather than looking at the idea at the patent’s heart, as this court’s jurisprudence requires.¹²⁶ Moreover, the opening brief’s description is perfectly consistent with the district court’s conclusion that the idea at the ’581 patent’s heart was the patent-ineligible concept of gathering, storing, and acting on data based on predetermined rules.¹²⁷

Even taking the brief’s *Alice* step-one description at face value, those are exactly the kind of generic data-gathering, transmission, and processing steps that this court has repeatedly held fail *Alice*’s step one. In *Content Extraction*, for example, this court concluded that claims failed *Alice*’s step one where they consisted of the steps of (1) collecting data (just as IV’s description involves data collected by a computer program), (2) recognizing certain data within the collected data set (just as IV’s description involves executing a discovery rule on the collected data) and (3) storing that recognized data in a memory (just as IV’s description involves data stored in a memory).¹²⁸

¹²⁵ Br. at 40.

¹²⁶ *Ultramercial III*, 772 F.3d at 714; *Internet Patents*, 790 F.3d at 1348.

¹²⁷ Appx51.

¹²⁸ *Content Extraction*, 776 F.3d at 1347.

In *Mortgage Grader*, this court concluded that the claims failed *Alice*'s step one where they required (1) a database that collected loan package information (just as IV's description involves data collected by a computer program), (2) searching that database to identify certain loan packages (just as IV's description involves executing a discovery rule on the collected data), and (3) the identified loan packages being displayed to the borrower (just as IV's description involves transmitting the data).¹²⁹ Finally, in *Accenture Global Services*, this court concluded that computer-implemented claims for "generating tasks [based on] rules . . . to be completed upon the occurrence of an event" reflected a patent-ineligible concept for purposes of *Alice*'s step one.¹³⁰ IV's own description of the claims is consistent with this concept. The district court correctly followed the law.¹³¹

IV asserts that its patent's claimed use of a computer system created patent-eligibility.¹³² That assertion runs counter to both the '581 patent and the law. The specification stated that the computer can be conventional.¹³³ It is settled §101 law that the use of a conventional computer does not confer patent-eligibility.¹³⁴

¹²⁹ *Mortgage Grader*, 811 F.3d at 1318.

¹³⁰ *Accenture Global Services, GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344 (Fed. Cir. 2013).

¹³¹ Appx49-51.

¹³² E.g., Br. at 38.

¹³³ Appx90 at 10:13-15; Appx85 (Fig. 7).

¹³⁴ *Mortgage Grader*, 811 F.3d at 1325.

Moreover, a human being could perform all of the steps of the brief’s description of the claimed method (leaving aside the beside-the-point claimed use of a conventional computer system). A human being could transfer a set of instructions (which is all that software represents), apply that set of instructions to data in a database, and then transmit the results of that application. Computational methods that can be performed in the human mind fail *Alice*’s step one.¹³⁵ Indeed, in *Mortgage Grader*, this court concluded that a representative method claim that required, among other things, a “computer system,” an interface to “upload [information] to the database over a computer network,” and “invok[ing], on a computer, a borrower grading module” could be performed in the human mind—the claimed use of generic computer technology was irrelevant to *Alice*’s step one.¹³⁶ The ’581 patent, with its less-computer-centric claims, presents an easier case for that same conclusion.

Faced with that law, the brief resorts to misdirection—in three ways. First, it argues that the ’581 patent avoided patent-ineligibility because it was “directed to improved diagnostic software in a very particular computer system, and it improve[d] how that diagnostic software operate[d].”¹³⁷ But the *patent* stated otherwise. Contrary to the brief’s argument, the patent did not state that it was

¹³⁵ 811 F.3d at 1324.

¹³⁶ 811 F.3d at 1318, 1324.

¹³⁷ Br. at 38.

directed to a very particular computer system. Instead, it stated that the claimed technologies could be implemented on “any type of computer, including a general purpose computer,”¹³⁸ and that typical client/server architecture would have likewise sufficed.¹³⁹ Likewise, the patent did not state that its system’s required computer-readable medium was improved. Instead, it could have been any type of “magnetic, optical, or electrical storage medium.”¹⁴⁰

Nor did the patent state that its system’s network was improved; instead, it could have used any type of communication link, using any type of communication medium.¹⁴¹ Finally, the patent did not state that it was directed to *improved* diagnostic software. Instead, it stated that the claimed discovery rules could be essentially anything.¹⁴² So, too, of the claimed “discovery agents,” which were simply a code sequence or program—and undisclosed, at that.¹⁴³ The patent even disavowed that its claimed technologies were limited to whatever particular embodiments it had disclosed.¹⁴⁴

¹³⁸ Appx90 at 10:13-14.

¹³⁹ Appx88 at 5:40-54; *see also* Appx80 (Fig. 1); Appx86 at 2:39-41; Appx87-88 at 4:8-5:62.

¹⁴⁰ Appx90 at 10:52-55.

¹⁴¹ Appx88 at 5:19-25.

¹⁴² Appx87 at 3:19-21.

¹⁴³ Appx86 at 1:62-2:6, 2:28-30; Appx87 at 3:5-35; Appx79 (Abstract).

¹⁴⁴ Appx86-87 at 2:66-3:4; *see also* Appx90 at 10:56-64.

Second, in its antecedent description of the '581 patent, the brief argues that the patent satisfied *Alice*'s step one because it “divid[ed] the software into three separate pieces—discovery agents, discovery rules, and a discovery engine—that are distributed over a client-server network. By separating the aspects of the diagnostic software, the technology is highly customizable and may run in the background of the client computer.”¹⁴⁵ But as the district court pithily observed, the claims do not require a “discovery engine,” and thus the claims cannot be saved by grafting that nonexistent requirement onto them.¹⁴⁶ Moreover, the brief cites no authority for the strange proposition that patent-ineligibility can be avoided by disaggregating generic and undisclosed code sequences into smaller pieces. Just as a patent claim cannot avoid patent-ineligibility by being limited to a particular technological environment, an abstract idea does not become concrete by breaking it into smaller parts. If anything, it becomes more abstract.

Third, the brief urges that the “client-server software nature” of the claims avoided patent-ineligibility.¹⁴⁷ But the patent stated that its client-server architecture was “typical,” not unique.¹⁴⁸ And this court has rejected, multiple times, the notion

¹⁴⁵ Br. at 8 (citation omitted).

¹⁴⁶ Appx54-55; *see also Ariosa*, 788 F.3d at 1379 (alleged inventive concept, if not a claim limitation, irrelevant to §101 patent-eligibility).

¹⁴⁷ Br. at 38.

¹⁴⁸ Appx88 at 5:50-54; *see also* Appx80 (Fig. 1); Appx86 at 2:39-41; Appx87-88 at 4:8-5:62.

that sending data over a computer network (which is what happens with a client/server architecture) confers patent-eligibility.¹⁴⁹

In sum, the '581 patent was directed to a patent-ineligible concept, as the district court correctly concluded.

2. The '581 Patent's Claim Limitations Did Not Contain a Sufficient Inventive Concept

In applying *Alice*'s step two, the district court likewise correctly concluded that '581 patent's claim limitations, considered individually and as an ordered combination, did not contain an inventive concept sufficient to ensure that the patent was significantly more than a patent on that abstract idea. They merely reflected conventional, generic, and non-specific computer technologies.

The '581 patent itself so stated. As explained in Statement of the Case §I(A)(3), *supra*, the patent stated that: its claims could have been implemented using a general-purpose computer; its client/server architecture was not unusual and was in fact typical; the claimed communication link—a required feature in computer networks—could have been any type of link, using any type of communication medium; and that its claimed discovery agents and discovery rules

¹⁴⁹ See, e.g., *Mortgage Grader*, 811 F.3d at 1324-1325 (finding claims that required an interface for lenders to securely upload their respective loan packages over a network to be patent-ineligible); *buySAFE*, 765 F.3d at 1354 (holding similar limitations not to be patent-eligible because “[t]he computers in *Alice* were receiving and sending information over networks connecting the intermediary to the other institutions involved, and the Court found the claimed role of the computers insufficient.”).

were merely undisclosed sequences of code that performed operations on data—with no limits on the mathematical formulas that could be used to implement them. And any type of magnetic, optical, or electrical storage medium would have sufficed for the claimed computer-readable medium.

Quoting this court’s opinion in *OIP Technologies*, the district court aptly observed that “[w]here the claims are so ‘exceptionally broad and the computer implementation limitations do so little to limit their scope,’ they are simply not patent-eligible.”¹⁵⁰ The Supreme Court has likewise underscored that point: “simply appending conventional steps, specified at a high level of generality,” is not an inventive concept sufficient to ensure that the patent was significantly more than a patent on the abstract idea.¹⁵¹ That principle, without more, dooms the ’581 patent’s claims when considered as an ordered combination, because that is all that they do.

The case law regarding the ’581 patent’s particular limitations likewise dooms them under §101. That the claims used a typical client/server architecture was not even arguably inventive.¹⁵² In a prior opinion where IV was the appellant, this court reminded it that requiring communication over a communications link is

¹⁵⁰ Appx56 (quoting *OIP Technologies*, 788 F.3d at 1363).

¹⁵¹ *Mayo*, 132 S. Ct. at 1300.

¹⁵² *buySAFE*, 765 F.3d at 1355; *see also, e.g.*, *Mortgage Grader*, 811 F.3d at 1324-1325 (claims to sending information over a network failed *Alice*’s step two); *OIP Technologies*, 788 F.3d at 1363-1364 (claim requiring “sending a first set of electronic messages over a network to devices” failed *Alice*’s step two).

a “generic computer element” that does not revive a patent-ineligible claim.¹⁵³ Even before that, the Supreme Court had instructed that requiring a communications link adds nothing inventive, as nearly every computer will include a communications component.¹⁵⁴ That the claims required software (“discovery rules” or “discovery agents”) to arrange, retrieve, or sort data did no more than to invoke the “normal, basic functions of a computer.”¹⁵⁵ Finally, that certain claims required a computer-readable medium did not save them from §101’s effect.¹⁵⁶

IV’s opening brief offers insubstantial argument in response. It first seeks patent-eligibility with the argument that its claims do not preempt “all applications” of the patent-ineligible idea.¹⁵⁷ As explained in Argument §I(A)(1), *supra*, this court has rejected that precise argument.

The brief likewise seeks to conjure an inventive concept with the argument that “[e]ach independent claim requires transmitting a discovery rule (specific

¹⁵³ *Intellectual Ventures I*, 792 F.3d at 1367-1368 (claim requiring “communication, over a communication medium and to a receiving device” failed *Alice*’s step two).

¹⁵⁴ *Alice*, 134 S. Ct. at 2360.

¹⁵⁵ *Versata Development Group, Inc. v. SAP America, Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) (“The steps in Versata’s claims (e.g., arranging, storing, retrieving, sorting, eliminating, determining) are conventional, routine, and well-known.”).

¹⁵⁶ E.g., *OIP Technologies*, 788 F.3d at 1363 (“machine-readable medium” requirement did not satisfy *Alice*’s step two); *Internet Patents*, 790 F.3d at 1348-1349 (same for “computer-readable storage medium”).

¹⁵⁷ Br. at 40-42.

software) to a remote computer system,” where “the discovery rule is applied (via a discovery engine executing the rule as the specification explains) to data” that the “discovery agent” (also specific software, but separate from the discovery rule) has collected, and the result of that application is then “communicated over a communications network from that remote computer.”¹⁵⁸

Contrary to IV’s characterization, the claims do not recite a “discovery engine.” In any event, IV’s argument is just another way of saying that the claims require a networked environment, multiple pieces of software, a database, the sorting of information in that database, and the reporting of the result of the sorting. Those are the kinds of steps, and exactly the kind of functionality, that this court and the Supreme Court have held *not* to provide an inventive concept for purposes of *Alice*’s step two.¹⁵⁹ As this court appropriately observed in *Mortgage Grader*, “after *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.”¹⁶⁰

IV likewise recycles its failed argument below that an inventive concept is present because some limitations provided that the discovery agents and discovery

¹⁵⁸ Br. at 41-42.

¹⁵⁹ *Alice*, 134 S. Ct. at 2358 (networked computing environment not an inventive concept); *Mortgage Grader*, 811 F.3d at 1318, 1324-1325 (no inventive concept from claim that required a “computer network,” uploading of data over that network, sorting of that data, and reporting the results of that sorting).

¹⁶⁰ *Mortgage Grader*, 811 F.3d at 1325 (quoting *DDR Holdings*, 773 F.3d at 1256).

rules could have been transmitted automatically, in contrast to the “static” prior art systems.¹⁶¹ But the fact that a limitation was “not previously employed in this art is not enough—standing alone—to confer patent eligibility[.]”¹⁶² Moreover, that the specified software could have been transmitted automatically was merely a by-product of the fact that the claimed invention required a networked computing environment—which, as *Alice* confirms, does not supply the requisite inventive concept.¹⁶³ Finally, even if the notion of updating software automatically had somehow been a brilliant insight, that would not have created patent-eligibility.¹⁶⁴

Retreating from its broad defense of all of the claims, the brief proposes that the dependent claims avoided patent-ineligibility by limiting their scope to particular implementations.¹⁶⁵ That is another way of saying that the dependent claims survive because of their more-limited technological environment. Where, as here, the dependent claims simply reflect routine and generic technologies, that proposition is wrong.¹⁶⁶ And, in any event, the two dependent claims to which IV

¹⁶¹ Br. at 41-42 (citing Appx86 at 1:18-59).

¹⁶² *Ultramercial III*, 772 F.3d at 716.

¹⁶³ *Alice*, 134 S. Ct. at 2358.

¹⁶⁴ *Association for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2117 (2013) (“groundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry.”).

¹⁶⁵ Br. at 42.

¹⁶⁶ *Alice*, 134 S. Ct. at 2358; *Content Extraction*, 776 F.3d at 1348-1349; *buySAFE*, 765 F.3d at 1354-1355.

points (claims 6 and 7) add nothing inventive. The former required the discovery rule to have been transmitted automatically; issuing automated instructions was well-understood, routine, and conventional.¹⁶⁷ The latter required the “discovery agent” and “discovery rule” to have been separate code sequences. In other words, IV argues that it was an inventive concept for different functionality to be provided by different pieces of software. To state that proposition is to refute it. Like the claims in *Content Extraction*, the dependent claims merely added routine and generic functionality, and that does not create an inventive concept.¹⁶⁸

C. The '434 Patent Failed §101, as the District Court Correctly Concluded

The district court correctly concluded that none of the '434 patent's claims were patent-eligible because it claimed the abstract idea of creating an index and using that index to search for and retrieve data—all using conventional and routine computing technology.¹⁶⁹ The brief levels the same kinds of attacks on the district court's judgment on the '434 patent as it leveled concerning the district court's judgment on the '581 patent. The attacks fail, again.

¹⁶⁷ *Alice*, 134 S. Ct. at 2359; *see also OIP Technologies*, 788 F.3d at 1363; *Accenture*, 728 F.3d at 1339, 1342.

¹⁶⁸ *Content Extraction*, 776 F.3d at 1347-1348.

¹⁶⁹ Appx62-65 (*Alice* step one); Appx65-70 (*Alice* step two).

1. The '434 Patent Claims Were Directed to the Patent-Ineligible Concept of Creating an Index and Using that Index to Search for and Retrieve Data

In assessing whether the '434 patent was directed to a patent-ineligible concept, the district court followed the same methodology that this court has implemented post-*Alice*. It looked to the claim language as a whole, noting that the claims required a series of steps—all of which were directed to the concept of creating an index and using it to search for and retrieve data.¹⁷⁰ But the court looked through the patent-ese (the minutiae in the various limitations) in trying to assess the idea at the patent's heart.

IV's principal attack on the district court's judgment regarding *Alice*'s step one is the contention that the '434 patent is “rooted in computer database search technology”¹⁷¹ and that it provided “a technological solution: ‘providing a method for locating information stored in a database using an index that includes tags and metafiles to locate the desired information.’”¹⁷² As IV would have it, the distillation that *Alice*'s step one requires must rigidly yield a description that includes various computer aspects of the claims.

The fatal problem with IV's argument is that the district court's methodology followed the course that *Alice* and this court's post-*Alice* §101

¹⁷⁰ Appx62; *see also* Appx63-64.

¹⁷¹ Br. at 43.

¹⁷² Br. at 44 (citing Appx135 at 2:36-39).

jurisprudence have established. As explained in Argument §I(A)(2), *supra*, the claims of the patents in each of *Alice*, *Mortgage Grader*, *buySAFE*, and *OIP Technologies* all required computing technologies, some of them quite specific. But contrary to IV's argument, the *Alice* step-one analysis did not yield, in any of those cases, a description of the patent-ineligible concept that included any of the claimed computing technologies. If IV's argument were right, *Alice* and this court's post-*Alice* law would be fundamentally different.

IV's blue brief appears to be setting up a grey brief argument that *DDR Holdings* controls.¹⁷³ *DDR Holdings* can apply when there is no real-world, bricks-and-mortar analogue to both the problem that the patent purported to address and the purported solution that the patent claimed.¹⁷⁴ Here, by contrast, there is such an analogue. As the district court trenchantly observed, the Library of Congress' classification system is a very similar brick-and-mortar analogue.¹⁷⁵

As a fallback, the opening brief retreats to the position that because *some* of the patent's claims require the use of the XML programming language, the patent's patent-ineligible concept must, too.¹⁷⁶ That argument is contrary to the patent. The

¹⁷³ *DDR Holdings*, 773 F.3d 1245.

¹⁷⁴ Appx58; *see also Intellectual Ventures I*, 792 F.3d at 1371 (issued after the district court's decision below).

¹⁷⁵ Appx63.

¹⁷⁶ Br. at 47-49.

specification stated that “the invention” can practiced using other languages.¹⁷⁷ (IV’s brief failed to mention this fact, although it did note that “the term ‘XML’ is mentioned over 200 times in the specification.”¹⁷⁸) Half of the patent’s 28 claims did *not* require the use of the XML programming language. In particular, none of independent claim 7 (and its dependent claims 8-13), independent claim 14 (and its dependent claims 15-18), and independent claim 27 (and its dependent claim 28) recited the use of the XML programming language.¹⁷⁹ IV identifies no case whose description of a patent’s abstract idea excludes half of its claims.

The brief’s argument is also contrary to *Alice* and to this court’s post-*Alice* §101 jurisprudence. All of the limitations of *Alice*’s representative claim required a computer, but *Alice*’s distillation of its step-one patent-eligibility concept did not.¹⁸⁰ Finally, as Argument §I(A)(2), *supra*, explains, multiple §101 cases from this court identify an *Alice* step-one patent-eligibility concept without computing technologies, even though limitations of the representative claim recited them.

2. The ’434 Patent’s Claim Limitations Did Not Contain a Sufficient Inventive Concept

Alice’s step two asks: do the claims contain an inventive concept sufficient to ensure that the patent was significantly more than a patent on the patent-

¹⁷⁷ Appx142 at 15:20-24; *see also* Appx67.

¹⁷⁸ Br. at 47.

¹⁷⁹ Appx142-143.

¹⁸⁰ *Alice*, 134 S. Ct. at 2353.

ineligible concept? Here, they did not, as the district court properly concluded.¹⁸¹

Instead, the claims were implemented through a grab-bag of conventional and generic computer software and hardware. Claim 1 and its dependent claims 2 through 6, for example, required the creation of a database that could be searched, the creation of an index to search the database, and various identifiers to associate information (which the claims called “tags” and “metafile[s]”).¹⁸² Independent claim 7 and its dependent claims 8 through 13 added further computer and data processing steps, principally to determine whether more than one category was relevant to the search request.¹⁸³ Independent claim 14, and its dependent claims 15 through 18, claimed computer-readable media that could execute the method steps of other claims in the patent.¹⁸⁴ Independent claim 19 and its dependent claims 20 and 21 recited XML-specific search methods (adding the requirement of a client), as did independent claim 22 and its dependent claims 23 and 24.¹⁸⁵ Independent claim 25 and its dependent claim 26 specified a method to create a metafile.¹⁸⁶ And independent claim 27 and its dependent claim 28 claimed methods for locating a

¹⁸¹ Appx65-70.

¹⁸² Appx142 at 15:38-16:8.

¹⁸³ Appx142 at 16:9-61.

¹⁸⁴ Appx142-143 at 16:62-17:42.

¹⁸⁵ Appx143 at 17:43-18:40.

¹⁸⁶ Appx143-144 at 18:41-19:2.

specific kind of record (“records related to a trade name”).¹⁸⁷

As discussed above in Statement of the Case §I(B)(3), the patent stated that all of those technologies were conventional. The §101 case law likewise recognizes such technologies as conventional. In *Mortgage Grader*, for example, this court confirmed that a patent failed *Alice*’s step two even though it contained technologies similar to those claimed in the ’434 patent—specifically, a database; functionality that allowed a user to search that database to identify specific records in it; and a networked computer system.¹⁸⁸ This court appropriately deemed such technologies to be routine and generic.¹⁸⁹ So, too, of *Intellectual Ventures I*, in which this court likewise confirmed that a patent failed assessment under *Alice* even though it contained technologies such as storing user-associated data in a database and the ability to correlate information based on that user’s identity.¹⁹⁰ The district court faithfully applied *Alice*’s step two, and it reached the correct result.

The criticisms that IV levels have no substance. IV opens with the argument that the “claims do not preempt all uses of index-based searching.”¹⁹¹ This argument is a manifestation of the brief’s fundamental analytical error discussed in

¹⁸⁷ Appx144 at 19:3-20:12.

¹⁸⁸ *Mortgage Grader*, 811 F.3d at 1318.

¹⁸⁹ 811 F.3d at 1324-1325.

¹⁹⁰ *Intellectual Ventures I*, 792 F.3d at 1367.

¹⁹¹ Br. at 49-50.

Argument §I(A)(1). The claims need not have preempted all uses of index-based searching to have run afoul of *Alice*'s second step.

IV further argues that “[n]one of the claims simply utilize generic computing components,” and that “there is nothing *generic* about them at all” (the emphasis is IV’s).¹⁹² As explained in Statement of the Case §I(B)(3), *supra*, the ’434 patent stated exactly that: that all of its claims could be implemented using routine and generic computing technologies. IV’s arguments about what its patent discloses run counter to patent’s text.

IV insists that the district court had to assess patent-eligibility claim-by-claim.¹⁹³ As explained in Argument §II, *infra*, this court has concluded otherwise. IV also accuses the district court of failing to assess the claims as an ordered combination.¹⁹⁴ Citing *Alice*, the court’s opinion specifically stated that it would consider the claims both individually and as an ordered combination, and then it did so.¹⁹⁵ Finally, the brief accuses the district court of making factual findings.¹⁹⁶ It did no such thing. It did, to be sure, rely on the patent’s statements that the claims could be implemented using conventional and generic technologies. In doing so,

¹⁹² Br. at 50.

¹⁹³ Br. at 50-51.

¹⁹⁴ Br. at 51.

¹⁹⁵ Appx27-28; Apprx59-61 (’581 patent); Appx65-66 (’434 patent); App73-76 (’002 patent).

¹⁹⁶ Br. at 51-52.

the district court followed this court’s guidance in any number of cases; *OIP Technologies*, where this court relied on the patent’s statements to conclude that the claim failed *Alice*’s step two, is but one.¹⁹⁷

D. The ’002 Patent Failed §101, as the District Court Correctly Concluded

The final patent that the district tested for patent-eligibility under *Alice* was the ’002 patent. The district court correctly that it, too, did not withstand scrutiny under *Alice*’s light. In assessing *Alice*’s step one, the district court correctly concluded that the idea at the ’002 patent’s heart was the patent-ineligible concept of remotely accessing specific user information.¹⁹⁸ Moving to step two, the district court correctly concluded that the claim limitations did not add a sufficient inventive concept. Instead, as the patent’s specification and this court’s prior post-*Alice* §101 jurisprudence confirmed, those limitations consisted of using routine and generic computer and software technologies to implement the claims.

On appeal, IV’s principal arguments are that (1) the ’002 patent was patent-eligible because its mobile interface concerned “specific software, used in a specific way” and (2) the problem to which it was directed “arose in the field of computer technology in in [sic] the late 1990s[.]”¹⁹⁹ But contrary to IV’s argument,

¹⁹⁷ *OIP Technologies*, 788 F.3d at 1363-1364.

¹⁹⁸ Appx71-72.

¹⁹⁹ Br. at 53.

the patent stated that the mobile interface could have been software, hardware, or middleware, and that it could have been implemented using a range of routine and generic computer technologies. And the problem of lacking remote access to user-specific resources was not unique to the computing environment.

In short, this court has rejected the kinds of arguments that IV makes, and IV again provides no reason to reverse that law or the district court's judgment.

1. The '002 Patent's Claims Were Directed to the Patent-Ineligible Concept of Remotely Accessing User-Specific Information

As the district court correctly found, claim 1 of the '002 patent recited just three basic steps: (1) retrieve a mobile interface from the network server; (2) display the mobile interface on the local device; and (3) retrieve user-specific resources and information using the mobile interface's plurality of pointers.²⁰⁰

When shorn of the implementation-specific minutiae of its claims, as *Alice* and this court's post-*Alice* jurisprudence requires, claim 1 was directed to the abstract idea of remotely accessing user-specific information. As explained above in Statement of the Case §I(C)(4), *supra*, the district court correctly concluded that claim 1 represented the '002 patent's other claims for §101 purposes, because the other claims had been substantially similar and linked to the same abstract idea.

That idea is manifestly a patent-ineligible concept. Indeed, and as the district

²⁰⁰ Appx71-72.

court recognized, “the abstract idea underlying the ’002 Patent existed long before computer technology existed and has analogues in the brick and mortar context[.]”²⁰¹ One such analogue: “calling a person from one location in order to obtain information located in another place.”²⁰²

As an initial matter, IV’s principal *Alice* step-one argument is well out of bounds. It unilaterally asserts that it “incorporates and largely rests upon its briefing in the *Capitol One* appeal.”²⁰³ Old Republic is not a party to that appeal, and IV has neither served nor even provided to Old Republic the briefs upon which it “largely rests.” Even leaving those facts aside, it is improper as a matter of law for an appellant to purport to incorporate briefs from one appeal into another, and the purportedly incorporated arguments are deemed waived.²⁰⁴

Notwithstanding that it “largely rests” on its arguments in that other, unserved brief, concerning an appeal from the judgment of a different district court, IV has specific criticisms of the district court in this case. First, that it “read the computer-technology-focused nature of the ’002 Patent out of the claims.”²⁰⁵ This is yet another manifestation of the fundamental *Alice* step-one error discussed in

²⁰¹ Appx76.

²⁰² Appx72-73.

²⁰³ Br. at 53.

²⁰⁴ E.g., *Monsanto Co. v. Scruggs*, 459 F.3d 1328, 1335 (Fed. Cir. 2006).

²⁰⁵ Br. at 55.

Argument §I(A)(2), *supra*, and as the cases discussed in that section show, IV’s argument on this issue runs afoul of both *Alice* and this court’s post-*Alice* §101 jurisprudence. To provide just one reminder from that jurisprudence: in *Mortgage Grader*, the patent-holder asserted independent claim 1, dependent claim 2, and independent claim 19 of U.S. Patent No. 7,366,694.²⁰⁶ Each of those claims required an “interface” and a “computer network,” and claims 1 and 2 required a “computer system.”²⁰⁷ But this court’s distillation of the claims to a patent-ineligible concept did not include those computer-specific minutiae. To the contrary, that concept was “anonymous loan shopping.”²⁰⁸ If IV’s argument were right, the *Mortgage Grader* court could not have reached its *Alice* step-one conclusion. But it did—which shows IV’s argument to be wrong.

Second, IV argues that its claims survived *Alice*’s step one because they involve a “mobile interface.”²⁰⁹ That fact did make them patent-eligible under *Alice*, as this court has held in both *Mortgage One* and an earlier appeal involving IV; in each, claims requiring an “interface” failed.²¹⁰

The brief tries to conjure patent-eligibility with the theory that the dependent

²⁰⁶ *Mortgage Grader*, 811 F.3d at 1318.

²⁰⁷ See U.S. Patent No. 7,366,694 at claims 1, 2, and 19.

²⁰⁸ *Mortgage Grader*, 811 F.3d at 1324.

²⁰⁹ Br. at 65 (mobile interface “is at the ’002 Patent’s core”).

²¹⁰ *Mortgage Grader*, 2016 WL 362415 at *7 (“interface” claims were generic); *Intellectual Ventures I*, 792 F.3d at 1370 (“interactive interface” claims: same).

claims “further narrow” the scope of the underlying abstract idea, as IV characterizes it, by limiting the types of computer networks and resources retrieved.²¹¹ That theory has two fatal defects. First, it proves too much. Dependent claims always narrow an invention’s scope.²¹² If the brief’s theory were right, dependent claims would, by their very nature, avoid scrutiny under *Alice*. Second, the theory is contrary to this court’s post-*Alice* §101 law. This court has explained in *buySAFE*, among other cases, that where, as here, dependent claims simply add conventional and generic technological implementations, the fact that they are narrower does not change the §101 analysis.²¹³

2. The ’002 Patent’s Claim Limitations Did Not Contain a Sufficient Inventive Concept

The ’002 patent’s claim limitations did not provide a sufficient inventive concept to ensure that the patent was significantly more than a patent on the patent-ineligible concept, as the district court correctly concluded.

Representative claim 1, for example, required a “mobile interface” that included a “plurality of pointers” and used the pointers to access user-specific information stored on a “local device” or “network server.” As explained above in Statement of the Case §I(C)(3), all of that technology was routine and generic. The

²¹¹ Br. at 57-58 (citing dependent claims 2-10).

²¹² 35 U.S.C. §112(d).

²¹³ *buySAFE*, 765 F.3d at 1355.

“mobile interface” could have been implemented on anything: hardware, software, or firmware. The art commonly used pointers to access information. The patent consistently depicted the “local device” and “network” as little more than a black box. Relying on the patent’s own descriptions of the implementing technologies, the district court properly concluded that the ’002 patent’s claim limitations did not revive the patent-eligibility of its claims.²¹⁴

This court’s case law confirms the correctness of that conclusion. As the district court observed, citing to a prior appeal involving IV, where a patent describes an interface (there, an “interactive interface”) in vague and generic terms, and the interface is nothing more than generic web functionality with attendant software, tasked with providing web pages to and communicating with the user’s computer, the claims are not patent-eligible.²¹⁵ The circumstances there match the circumstances here. In each, the patent described the claimed interface in vague and generic terms—nothing more than generic functionality (in this case, hardware, software, or firmware) with attendant software, tasked with providing pointers through which a user could access data. In that prior IV appeal, this court described the claimed interface as “generic.”²¹⁶ So, too, of this claimed interface. Finally, this court’s post-*Alice* §101 jurisprudence confirmed that the claims’

²¹⁴ Appx73-76.

²¹⁵ Appx74 (discussing *Intellectual Ventures I*, 792 F.3d at 1370).

²¹⁶ *Intellectual Ventures I*, 792 F.3d at 1368, 1370.

“local device” and “network server” limitations were routine and generic, as the district court properly concluded.²¹⁷

IV’s arguments run counter to this law, and in any event each fails for other reasons. IV again insists that §101 analysis had to proceed claim-by-claim.²¹⁸ As discussed above, this court has concluded otherwise. IV argues that “[t]here was no evidence in the pleadings that showed that the claimed mobile interface was conventional[.]”²¹⁹ This argument ignores the many statements in the ’002 patent’s specification, as well as the numerous cases from this court addressing the specific kinds of limitations that the ’002 patent contained.

IV likewise finds fault with the district court’s reliance on a prior appeal by IV that also involved a claimed “interface.” Contrary to its arguments in that prior appeal, IV now admits that the “interface” in its prior appeal was “generic”—but argues that the interface in this appeal is not.²²⁰ That argument ignores this patent’s specification and claims. As discussed above, neither described with any specificity how the claimed “mobile interface” performed its function, how to construct hardware to implement it, or how to write software to implement it. So,

²¹⁷ Appx75; *see, e.g., buySAFE*, 765 F.3d at 1355 (that a computer sends information over a network is “not even arguably inventive”).

²¹⁸ Br. at 58-59.

²¹⁹ Br. at 60.

²²⁰ Br. at 60-61.

too, of the “interactive interface” involved in the prior IV appeal. The district court appropriately relied on that law, even leaving aside that the appellant was the same.

II. IV’s Procedure-Based Efforts to Avoid Testing Its Patents Under §101 Had No Traction, as the District Court Correctly Concluded

In the proceedings below, IV advanced a jumble of procedure-based arguments, the gist of which was: avoid or defer §101 scrutiny of the patents. The district court rejected each of those efforts. Recycling those arguments here, IV faults the district court. But there is no fault to be found, because the district was simply implementing this court’s §101 jurisprudence.

As noted, the brief argues that testing for patent-eligibility must proceed claim-by-claim.²²¹ This court holds otherwise.²²² The brief argues that applying *Alice* (something that the PTO necessarily could not have done, because the patents issued well before *Alice*) had to wait for “a full record . . . including claim construction.”²²³ Here, too, this court has instructed otherwise.²²⁴ And for good and proper reasons. As Judge Mayer of this court has emphasized, “[f]ailure to recite statutory subject matter is the sort of ‘basic deficiency,’ that can, and should, ‘be exposed at the point of minimum expenditure of time and money by the parties and

²²¹ E.g., Br. at 58-59 (context of the ’002 patent).

²²² E.g., *Content Extraction*, 776 F.3d at 1348; *Ultramercial III*, 772 F.3d at 712.

²²³ E.g., Br. at 33.

²²⁴ E.g., *Content Extraction*, 776 F.3d at 1349.

the court.”²²⁵ Assessing §101 issues at the outset “not only conserves scarce judicial resources and spares litigants the staggering costs associated with discovery and protracted claim construction litigation, it also works to stem the tide of vexatious suits brought by the owners of vague and overbroad” patents.²²⁶

The brief also proposes that in the Third Circuit, patent-ineligibility cannot be assessed via a Rule 12(b)(6) motion.²²⁷ The brief impeaches its own proposition, because it later admits that a Rule 12(b)(6) motion is proper when based on the complaint’s four corners.²²⁸ That is how Old Republic’s §101 challenge, and the district court’s analysis of it, was framed: based on the four corners of each of the three patents that IV filed with its complaint.²²⁹ In any event, the argument is also incorrect. District courts in the Third Circuit have found patent-ineligibility based on Rule 12(b)(6) motions, and this court has affirmed.²³⁰

Finally, IV’s opening brief argues that Old Republic had the burden to show patent-ineligibility by clear and convincing evidence.²³¹ This argument tilts at a

²²⁵ *OIP Technologies*, 788 F.3d at 1364 (Mayer, J., concurring) (quoting *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 558 (2007)).

²²⁶ 788 F.3d at 1364-1365 (Mayer, J., concurring).

²²⁷ Br. at 32-33.

²²⁸ Br. at 33.

²²⁹ Appx217 (docket entries, reflecting complaint and three attached patents).

²³⁰ *Content Extraction*, 776 F.3d at 1343; *buySAFE*, 765 F.3d at 1355.

²³¹ Br. at 33-34.

windmill. Old Republic presented its arguments, and the district court assessed them, as if the clear and convincing evidence standard applied.²³²

CONCLUSION

In its scholarly, thorough, and closely reasoned opinion, the district court faithfully applied *Alice* and this court’s post-*Alice* jurisprudence elucidating it. IV proffers no principled reason to overturn that jurisprudence or the district court’s application of it. It would be appropriate to affirm the district court’s judgment that each of the three patents-in-suit was directed to patent-ineligible subject-matter. Old Republic respectfully asks this court to do so.

Dated: April 8, 2016

Respectfully submitted,

/s/ Vernon M. Winters

VERNON M. WINTERS

SIDLEY AUSTIN LLP

555 California Street, 20th Floor

San Francisco, CA 94104

(415) 772-7441

*Attorneys for Defendants-Appellees
Old Republic General Insurance Group,
Inc., Old Republic Insurance Company,
Old Republic Title Insurance Group,
Inc., and Old Republic National Title
Insurance Company*

²³² Appx227 n.3; Appx26-27 n.27.

CERTIFICATE OF SERVICE

I hereby certify that, on this 8th day of April, 2016, I filed the foregoing Brief for Defendants-Appellees Old Republic General Insurance Group, Inc., Old Republic Insurance Company, Old Republic Title Insurance Group, Inc., and Old Republic National Title Insurance Company with the Clerk of the United States Court of Appeals for the Federal Circuit via the CM/ECF system, thereby electronically serving it on all counsel of record in this matter.

Dated: April 8, 2016

/s/ Vernon M. Winters

VERNON M. WINTERS
SIDLEY AUSTIN LLP
555 California Street, 20th Floor
San Francisco, CA 94108
(415) 772-1200

CERTIFICATE OF COMPLIANCE

Pursuant to Fed. R. App. P. 32(a)(7)(C), the undersigned hereby certifies that this brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) and Circuit Rule 32(b).

1. Exclusive of the brief's exempted portions, as defined in Fed. R. App. P. 32(a)(7)(B), the brief contains 12,314 words.
2. The brief has been prepared in proportionally spaced typeface using Microsoft Word 2010 in 14 point Times New Roman font. As Fed. R. App. P. 32(a)(7)(C) permits, the undersigned has relied upon the word count feature of this word processing system in preparing this certificate.

Dated: April 8, 2016

/s/ Vernon M. Winters

VERNON M. WINTERS
SIDLEY AUSTIN LLP
555 California Street, 20th Floor
San Francisco, CA 94108
(415) 772-1200